

In re the Application of

CARNAHAN et al.

Application No.: 09/665,767

Filed: September 20, 2000

For: METHOD AND APPARATUS FOR RAPID DETERMINATION OF POLYMER MOLECULAR WEIGHT

DECLARATION UNDER 37 c.f.r. §1.131

Group Art Unit: 2856

Examiner: Michael Cygan

Assistant Commissioner for Patents
Washington, D. C. 20231

We, James Carnahan and Paul Gundlach, hereby declare and state:

1. This Declaration is submitted as evidence that the subject matter claimed in the above-identified application was invented by us prior to April 2, 1999.
2. We are the persons named as inventors in the above-identified application.
3. We are the authors of Patent Disclosure Letter on Method for Fast GPC Separation with Molecular Weight Determination for Combinatorial Chemistry written prior to April 2, 1999, which appears as the Exhibit A (five pager) attached to this Declaration.
4. We are the authors of the reduction to practice letter to "LX Team," entitled "Rapid Screening of Combinatorial LX Polymer Reactions" written prior to April 2, 1999, which appears as the Exhibit B (three pager) attached to this Declaration.
5. Exhibit A is a true copy of our invention proposal, dates having been deleted therefrom prior to preparing the copy and Exhibit B is a true copy of our reduction to practice letter, dates having been deleted therefrom prior to preparing the copy.
6. The invention of the method and system described in Exhibit A and Exhibit B may be summarized as follows:


A method for the determination of polymer molecular weight comprises injecting a known volume of an analytical sample comprising a polymer into a flow analysis system comprising a chromatographic column, a concentration detector, and a molar mass detector; effecting a minimally dispersive separation of the analytical sample with the chromatographic column to yield a high molecular weight fraction; determining the polymer concentration in the high molecular weight fraction using the concentration detector; determining the molar mass in the high molecular weight fraction using the molar mass detector; and deriving an average molecular weight from the polymer concentration and the molar mass; wherein the total analysis time is not greater than about 5 minutes per sample.

7. Exhibit A and Exhibit B describe an invention conceived and reduced to practice by us in the United States prior to April 2, 1999.
8. This invention is claimed in the above-identified application.
9. That as described in Exhibit B prior to April 2, 1999 in the United States, we carried out a reduction to practice of our invention described in Exhibit A and determined polymer molecular weight of polymer products of a combinatorial procedure with a system of the invention proposal of Exhibit A.

We hereby declare that all statements made herein of our own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and/or imprisonment under Section 1001 of Title 18 of the United States Code, and that such false statements may jeopardize the validity of the application or any patent issuing therefrom.

2/8/02

Date


James C. Carnahan2/8/02

Date


Paul E. Gundlach